The secondary display controller **114** may comprise a microcontroller and/or a microprocessor, and one or more of non-volatile memory (e.g., a ROM, EEPROM, flash memory, etc.), a volatile memory (e.g., a RAM), and an I/O circuit.

[**0101**] To a person looking through the viewing window **704**, the object **716** will appear in front of the object **712** for a first range of positions of the object **716**, and will appear to be behind object **712** for a second range of positions of the object **716**. A detector **762** may be used to detect a transition position of the object **716** at which the depth of the object **716** appears to a viewer to be approximately equal to the depth of the object **712**. The detector **762** may be operatively coupled to the secondary display controller **114** so that the secondary display controller **114** can detect when the object **716** is at the transition position. In one embodiment the detector **762** may comprise a switch that is normally in a first state, but can be changed to a second state by a flag **766**. The flag **766** may be positioned on the shaft **732** such that the flag **766** changes the state of the switch **762** when the object **716** is at the transition position. For example, the detector **762** may comprise an optical-electrical device that changes to the second state when the flag **766** blocks light to a phototransistor. As another example, the detector **762** may comprise a switch that changes to the second state when the flag **766** makes contact with the switch.

[**0102**] The secondary display unit **88** may also comprise detectors **770** and **774** for detecting when the object **716** has reached a maximum front position and a maximum rear position, respectively. The detectors **770** and **774** may be operatively coupled to the secondary display controller **114** so that the secondary display controller **114** can detect when the object **716** is at the maximum front position and the maximum rear position. The detectors **770** and **774** may be of a type as described above with reference to the detector **762**. For example, the detector **770** may be a switch normally in a first state, and a flag **778** may be positioned on the shaft **732** such that the flag **778** changes the state of the switch **770** to a second state when the object **716** is at the maximum front position. Similarly, the detector **774** may be a switch normally in a first state, and a flag **782** may be positioned on the shaft **732** such that the flag **782** changes the state of the switch **774** to a second state when the object **716** is at the maximum rear position.

[**0103**] In some embodiments, one or more of detectors **762**, **770**, and **774**, and one or more of flags **766**, **778**, and **782** may be omitted. For example, the position of the object **716** may be determined by the secondary display controller **114** based on an initial position of the shaft **732**, and based on what control signals have been applied to the motor **736**. Each of flags **766**, **778**, and **782** may comprise a component coupled to the shaft **732** suitable for blocking light to a phototransistor, changing the state of a switch upon contact with the switch, etc. One or more of the flags **766**, **778**, and **782** may also comprise an integrated extension of the shaft **732**. Additionally, a single component coupled to, or integrated with, the shaft **732** may comprise one or more of flags **766**, **778**, and **782**.

[**0104**] The object **712** may comprise a luminous object. For example, the object **712** may be illuminated by light or lights, and/or may include, or have coupled thereto, incandescent lights, LEDs, a liquid crystal display, an alphanumeric display (e.g., a seven segment display), luminescent elements, electroluminescent elements, etc. U.S. Pat. No. 6,027,115, entitled "Slot Machine Reels Having Luminescent Display Elements," issued Feb. 22, 2000, and assigned to the assignee of the present application, describes electroluminescent elements that may be included in, or coupled to, the object **712**. U.S. Pat. No. 6,027,115 is hereby incorporated by reference herein in its entirety for all purposes. Similarly, the object **716** may comprise a luminous object that may be illuminated by a light or lights, and/or include any elements as described with respect to the object **712**.

[**0105**] In some embodiments, the object **712** may be movable as well. As one example, the object **712** may be coupled to a shaft **788**, which may be coupled to a motor **792**. The motor **792** may spin the shaft, and thus cause the object **712** to spin. The motor **792** may comprise a stepper motor or any other suitable motor for spinning the object **712**. The motor may be operatively coupled to the secondary display controller **114** and controlled by the secondary display controller **114**. It is to be understood, however, that the object **712** need not be movable. Thus, in some embodiments, the shaft **788** and motor **792** may be omitted. Position detectors and flags (not shown) associated with the object **712** may be operatively coupled to the secondary display controller **114** to allow the secondary display controller **114** to detect the position of the object **712**.

[**0106**] In operation, the secondary display controller **114** may position the object **716** at various distances from the viewing window **704**. The secondary display controller **114** may continuously move the object **716** back and forth, and/or may move the object **716** to stationary positions. Similarly, the secondary display controller **114** may spin the object **712** in one or two directions. The secondary display controller **114** may continuously spin the object **712**, and/or may move the object **712** to stationary positions.

[**0107**] **FIG. 17** is a flowchart of an operating routine **800** that may be stored in the memory of the secondary display controller **114**. The flow of **FIG. 17** will be described with reference to **FIGS. 3 and 16**. At block **804**, the secondary display controller **114** may receive a message from the main controller **100** indicating that objects **712** and **716** are to start moving. At block **808**, the secondary display controller **114** may receive from the main controller **100** an indication or indications of the positions at which the objects **712** and **716** should be stopped. At block **812**, the secondary display controller **114** may initialize and start a timer. The timer may indicate a time the objects **712** and **716** should move prior to stopping them at the positions indicated at block **808**.

[**0108**] At block **816**, the secondary display controller **114** may cause the object **712** to start moving. For example, the secondary display controller **114** may control the motor **792** to start the object **712** spinning at a particular spin rate. At block **818**, the secondary display controller **114** may cause the object **716** to start moving. For example, the secondary display controller **114** may control the motor **736** to cause the object **716** to move back and forth between the maximum front position and the maximum rear position as indicated by the sensors **770** and **774**.

[**0109**] At block **820**, it may be determined whether the timer started at block **812** has timed-out. If the timer has not timed-out, the flow may proceed to block **824**. At block **824**, the secondary display controller **114** continues to cause the